



THE CITY OF SAN DIEGO

Mayor

Dick Murphy

Council

Scott Peters

Michael Zucchet

Toni Atkins

Charles Lewis

Brian Maienschein

Donna Frye

Jim Madaffer

Ralph Inzunza



Frank Belock, *Jr. Director*

Patti Boekamp, *Chief Deputy Director*

Jamal Batta, *Senior Civil Engineer*

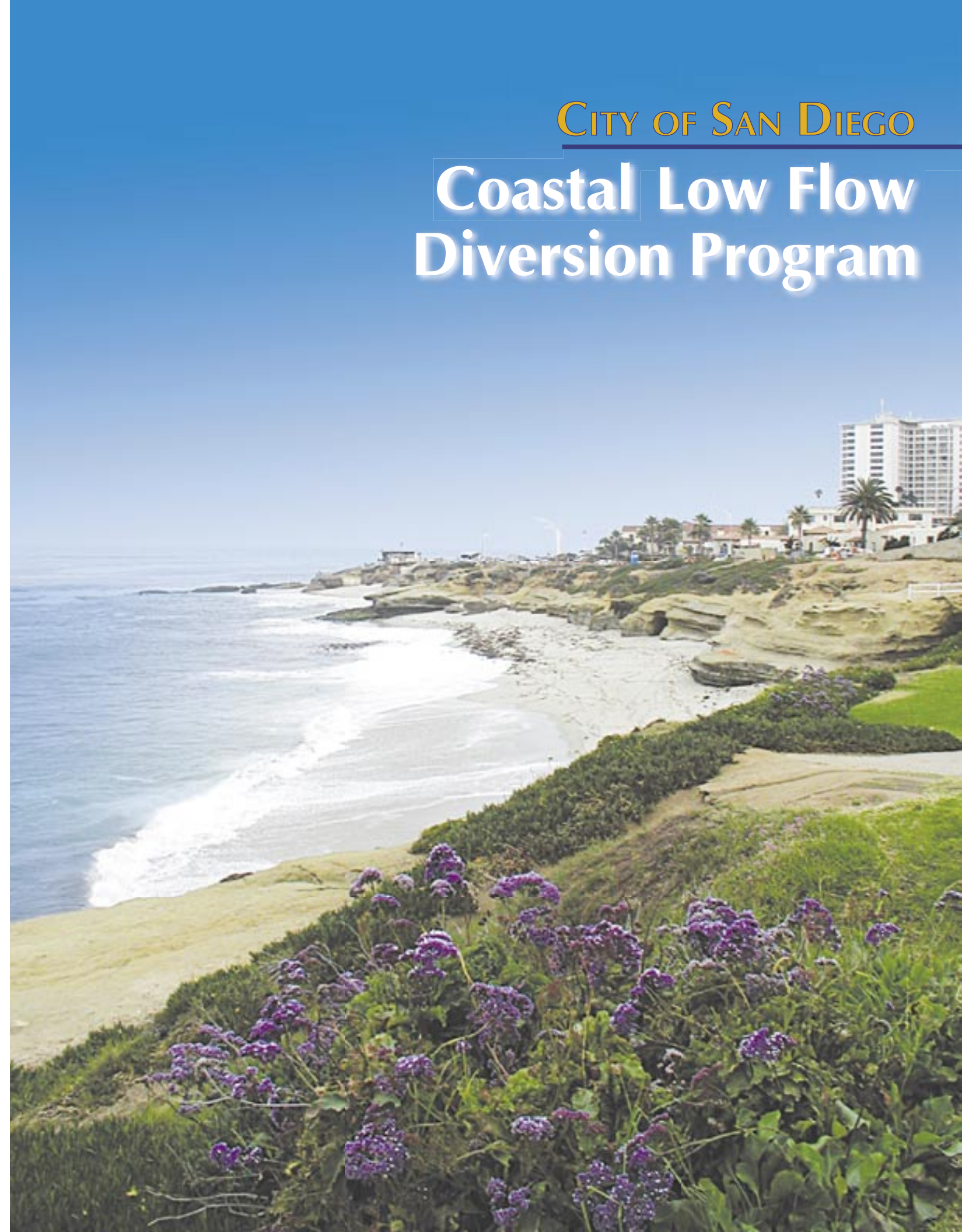
Mark Nassar, *Project Manager*

For more information, call (619) 533-3779



CITY OF SAN DIEGO

Coastal Low Flow Diversion Program



PROGRAM PURPOSE

San Diego is a remarkable place. The natural beauty of our rugged coastline, mountainous inland areas and desert plateaus meld together in a seemingly seamless fabric of biodiversity that is breathtaking. Yet, like many cities, our natural beauty struggles to endure and overcome the adverse water quality impacts our urbanized lifestyle brings to our beaches, bays, wetlands and ocean.

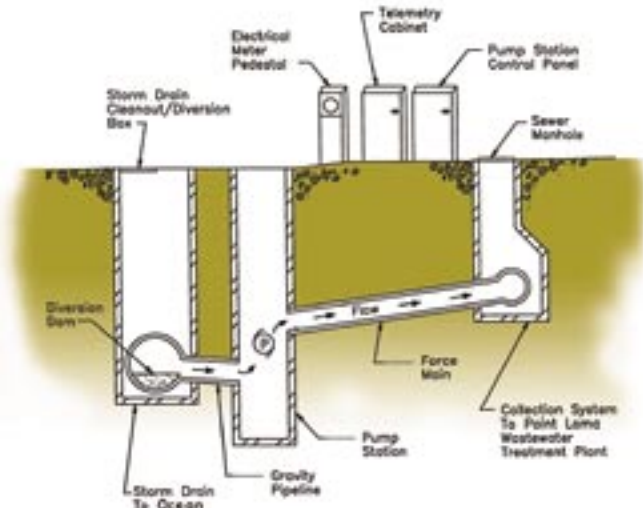
Residents and visitors alike are drawn to — and our economy relies upon — the unique lifestyle our coastal environment provides. Thus, in 2001, the Mayor and City Council established **“Goal #4 - Clean up our beaches and bays”** as one of the most urgent civic improvements to be achieved.

Like most cities, the greatest cause of high bacteria counts at San Diego beaches is urban runoff, not sewage spills. Sewage spills account for less than 10 percent of beach posting and closure days in the City of San Diego.



Over the last twenty years, the City of San Diego has taken aggressive steps to improve water quality and limit the impacts of urban runoff and sewage spills to our recreational waters. In the mid 1980's, the City pioneered a new technology when it constructed eight Coastal Low Flow Diversion facilities — at Mission Bay. The primary purpose of the facilities was to protect beach goers from polluted runoff during dry weather months- which is most of the time in San Diego.

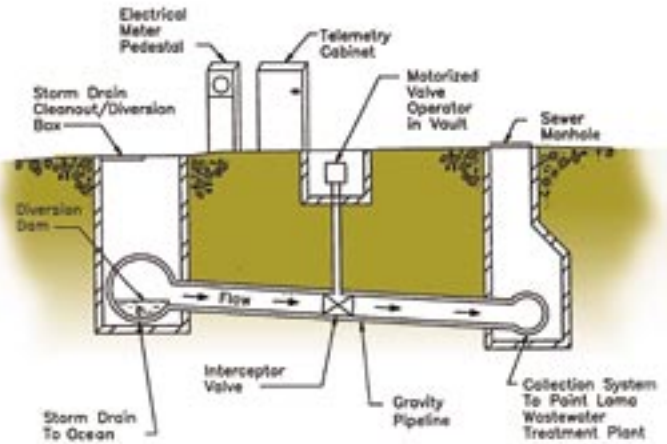
By 1996, some 46 Diversion facilities were ringing Mission Bay and the San Diego River channel. The Mission Bay facilities successfully diverted urban runoff and sewage spills, thereby reducing the risk of illness to beach goers. Thus, the City decided to add facilities to the Coastal Low Flow Diversion Program to be implemented by the Engineering and Capital Projects Department.



PUMPED LOW FLOW STORM DRAIN DIVERSION

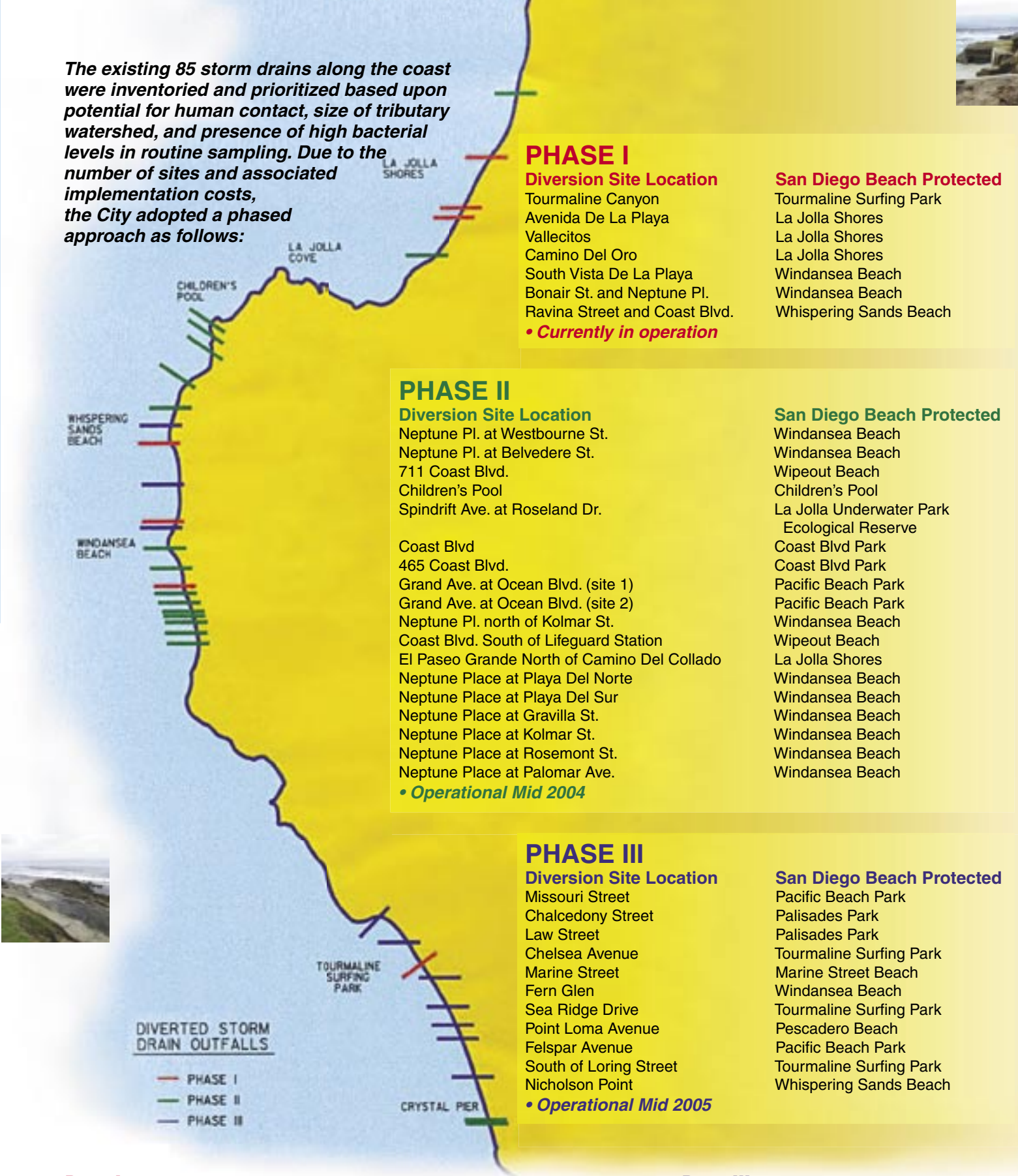
drain pipe terminus at the beach. Often these facilities are the last barrier protecting the beach from unhealthy flows.

Diversion facilities consist of a series of underground pipelines, valves and pumps. They tie into the storm drain system and divert “low flows” into the sewer system for treatment. “Low flows” are urban runoff and/or sewage overflows, or flows seen during dry weather periods as opposed to the “high flows” experienced during rainy periods. The Diversion facilities are equipped with sensors that trigger the facility to shut down and stop diversion when high flows are experienced.



GRAVITY LOW FLOW STORM DRAIN DIVERSION

The existing 85 storm drains along the coast were inventoried and prioritized based upon potential for human contact, size of tributary watershed, and presence of high bacterial levels in routine sampling. Due to the number of sites and associated implementation costs, the City adopted a phased approach as follows:



PHASE I

Diversion Site Location

- Tourmaline Canyon
- Avenida De La Playa
- Vallecitos
- Camino Del Oro
- South Vista De La Playa
- Bonair St. and Neptune Pl.
- Ravina Street and Coast Blvd.
- Currently in operation

San Diego Beach Protected

- Tourmaline Surfing Park
- La Jolla Shores
- Vallecitos
- La Jolla Shores
- Windansea Beach
- Windansea Beach
- Whispering Sands Beach

PHASE II

Diversion Site Location

- Neptune Pl. at Westbourne St.
- Neptune Pl. at Belvedere St.
- 711 Coast Blvd.
- Children's Pool
- Spindrift Ave. at Roseland Dr.
- Coast Blvd
- 465 Coast Blvd.
- Grand Ave. at Ocean Blvd. (site 1)
- Grand Ave. at Ocean Blvd. (site 2)
- Neptune Pl. north of Kolmar St.
- Coast Blvd. South of Lifeguard Station
- El Paseo Grande North of Camino Del Collado
- Neptune Place at Playa Del Norte
- Neptune Place at Playa Del Sur
- Neptune Place at Graviilla St.
- Neptune Place at Kolmar St.
- Neptune Place at Rosemont St.
- Neptune Place at Palomar Ave.
- Operational Mid 2004

San Diego Beach Protected

- Windansea Beach
- Windansea Beach
- Wipeout Beach
- Children's Pool
- La Jolla Underwater Park
- Ecological Reserve
- Coast Blvd Park
- Coast Blvd Park
- Pacific Beach Park
- Pacific Beach Park
- Windansea Beach
- Wipeout Beach
- La Jolla Shores
- Windansea Beach
- Windansea Beach
- Windansea Beach
- Windansea Beach
- Windansea Beach
- Windansea Beach

PHASE III

Diversion Site Location

- Missouri Street
- Chalcedony Street
- Law Street
- Chelsea Avenue
- Marine Street
- Fern Glen
- Sea Ridge Drive
- Point Loma Avenue
- Felspar Avenue
- South of Loring Street
- Nicholson Point
- Operational Mid 2005

San Diego Beach Protected

- Pacific Beach Park
- Palisades Park
- Palisades Park
- Tourmaline Surfing Park
- Marine Street Beach
- Windansea Beach
- Tourmaline Surfing Park
- Pescadero Beach
- Pacific Beach Park
- Tourmaline Surfing Park
- Whispering Sands Beach

PHASE I

This phase is comprised of 7 sites. The sites within this phase have been constructed and are currently in successful operation.

PHASE II

The Environmental Protection Agency funded 55 percent of the cost for 17 of the 18 sites. Construction to start September 2003.

PHASE III

These 11 sites have also received federal grant funding from the Environmental Protection Agency for 55% of their cost.

In July 2003, the City of San Diego received \$6,091,400 in funding from the U.S. Environmental Protection Agency to assist in the construction of new, and the repair of existing Diversion facilities.